

KYLE D. GUSTAFSON

Curriculum Vitae

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870-972-3174

CV SUMMARY

Current position: Assistant Professor of Biology and Curator of Mammals

Previous experience: BSc Wildlife Biol, MSc Biol, PhD Zoology 2016, Postdoc, Asst Prof

Teaching: TA for 10 semesters, professor for 7 unique UG and GRAD courses since 2018

Grants: Awarded over \$2M as PI or Co-PI, acquired competitive grants as UG and as GRAD

Research: 25 peer-reviewed publications, 40 oral presentations, UG and GRAD mentorship

Notable Achievements:

- **Ashton Cuckler New Investigator Award (2018)** [American Society of Parasitologists](#)
- **Outstanding Graduate Student Award (2016)** [Oklahoma State University](#)
- **Ford Foundation Dissertation Fellowship (2014–2015)** [National Academy of Sciences](#)
- **Outstanding Graduate Student Award (2011)** [University of North Dakota](#)
- **Ronald E. McNair Fellowship (2008–2009)** [TRiO Program](#)

EDUCATION

PhD	Oklahoma State University	Zoology	2016
Graduate Certificate	Oklahoma State University	Interdisciplinary Toxicology	2014
MS	University of North Dakota	Biology	2011
BS	University of North Dakota	Wildlife and Fisheries Biology	2009

PROFESSIONAL EXPERIENCE

Arkansas State University	Assistant Professor of Biology	2020–Current
Arkansas State University ACBC	Curator of Recent Mammals	2020–Current
Missouri Southern State University	Assistant Professor of Biology	2018–2020
University of Wyoming	Postdoctoral Researcher	2016–2018
Oklahoma State University	Laboratory Instructor	2015–2016
Oklahoma State University	National Academy of Sciences Ford Fellow	2014–2015
Oklahoma State University	Researcher Assistant	2014
Oklahoma State University	Laboratory Instructor	2011–2014
University of North Dakota	Laboratory Instructor	2010–2011
University of North Dakota	USDA Graduate Research Assistant	2009–2010
University of North Dakota	Ronald E. McNair Research Scholar	2008–2009
USGS Wildlife Research Center	Lead Biological Science Technician	2008
University of North Dakota	NSF Advanced Undergrad Researcher	2007

COURSES TAUGHT

ARKANSAS STATE UNIVERSITY

Parasitology	Spring 2023	BIO 4384/5384	12 students
Population Genetics	Fall 2022	BIO 4013/5013	13 students
Honors Genetics	Fall 2022	BIO 3013	11 students
Honors Genetics	Spring 2022	BIO 3013	9 students
Genetics	Spring 2022	BIO 3013	53 students
Mammalogy	Fall 2021	BIO 4354/5354	8 students
Parasitology	Spring 2021	BIO 4382/5382	10 students
Parasitology Lab	Spring 2021	BIO 4392/5392	7 students
Seminar: Ecol/Evol Parasitism	Spring 2021	ESCI 7121	1 students
Mammalogy	Fall 2020	BIO 4352/5352	15 students
Mammalogy Lab	Fall 2020	BIO 4351/5351	14 students

MISSOURI SOUTHERN STATE UNIVERSITY

General Biology Lecture/Lab		BIOL 101	2 sections
Principles of Biology I Lecture/Lab		BIOL 108/109	4 sections
Genetics Lecture/Lab		BIOL 305	6 sections
Parasitology		BIOL 361	1 section
Environmental Toxicology		EH 371	2 online sections

UNIVERSITY OF WYOMING

Conservation Genomics Seminar		ECOL 5602	1 section
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OKLAHOMA STATE UNIVERSITY

Animal Biology Laboratory		ZOOL 1604	6 semesters
General Parasitology Laboratory		ZOOL 4104	1 semester
Introductory Biology Laboratory		ZOOL 1114	1 semester

UNIVERSITY OF NORTH DAKOTA

Population Biology Laboratory		BIOL 333	1 semester
Systematic Botany Laboratory		BIOL 336	1 semester

GRANTS

ARKANSAS STATE UNIVERSITY (as PI or Co-PI; *UG mentee; †GRAD student mentee)

- 9 **PI KD Gustafson** (2022, Sept 15; 2022–2023) *Co-evolution of host snails and parasitic trematodes: DNA sequencing reveals relationships*. NIH INBRE Core Facility Voucher Application [**\$7,425**]
- 8 **PI KD Gustafson** (2022, June 27; 2022–2024) *Wood Frog (*Lithobates sylvaticus*) mass mortality events in Arkansas: Pathogens, parasites, and genetics*. USFWS AGFC Arkansas Game and Fish Commission State Wildlife Grant [**\$66,674**]
- 7 **PI T Marsico, Co-PI J Qualls, Co-PI E Bellis, Co-PI A Wijeratne, and Co-PI KD Gustafson** (2022, June 24; 2022–2026) *NRT: Understanding Invasion and Disease Ecology and Evolution through Computational Data Education*. NSF Research Traineeship [**\$1,999,484**]
- 6 **PI A Sweet, Co-PI KD Gustafson, Co-PI A Wijeratne, and Co-PI S Mangan** (2021, December 27; 2022–2022) *Acquisition of equipment to enhance genomic infrastructure at Arkansas State University*. NIH INBRE Shared Instrument Grant [**\$26,395**]

- 5 **PI KD Gustafson** (2021, September 15; 2021–2022) *Using sequence data to determine parasite transmission in Arkansas*. NIH INBRE Core Facility Voucher Application [**\$3,300**]
- 4 **PI KD Gustafson** (2021, June 09; 2021–2023) *The ghost of Arkansas' red wolf: Genomic and morphometric assessment of remnant red wolves and admixed coyotes*. Arkansas Biosciences Institute Research Grant [**\$70,000**]
- 3 **PI KD Gustafson** (2020, September 15; 2020–2021) *Snail genomes: the missing link in understanding trematode host specificity. Insights into parasite transmission dynamics through species-specific sequence tracking*. NIH INBRE Core Facility Voucher Application [**\$4,827**]
- 2 **PI KD Gustafson** (2020, September 01; 2021) *Enhancing the biology program through modern microscopes*. The Kay's Foundation Grant [**\$18,950**]
- 1 **PI KD Gustafson** (2020, August 17; 2020–2023) *INBRE startup funds for Kyle Gustafson's Host-Parasite lab*. NIH INBRE New Faculty Recruitment Package [**\$100,000**]

MISSOURI SOUTHERN STATE UNIVERSITY (grants as PI; *UG mentee)

- 2 **PI KD Gustafson** (2019, Nov 1) *Population genetics of Missouri snails (*Physa acuta*)*. MSSU Faculty Development Committee [**\$500**]
- 1 Priester*, C, **PI KD Gustafson** (2022, June 27) *Assessment of prairie wetland restorations using aquatic invertebrate surveys*. Prairie Biotic Research, Inc [**\$1,200**]

OKLAHOMA STATE UNIVERSITY (grants awarded to me as student)

- 7 *Society for Environmental Toxicology and Chemistry Student Travel Grant*. (2014) SETAC [**\$400**]
- 6 *Willis A. Reid, Jr. Student Research Grant*. (2014) American Society of Parasitologists [**\$1,000**]
- 5 *Marc Dresden Student Travel Grant*. (2014) American Society of Parasitologists [**\$400**]
- 4 *S.L. "Bud" Burks Memorial Graduate Research Grant*. (2014) Oklahoma State University: Department of Zoology [**\$800**]
- 3 *Southwestern Association of Parasitologists Student Research Grant*. (2013) American Society of Parasitologists: Southwestern Association of Parasitologists [**\$250**]
- 2 *Marc Dresden Student Travel Grant*. (2012) American Society of Parasitologists [**\$400**]
- 1 *Southwestern Association of Parasitologists Student Research Grant*. (2012) American Society of Parasitologists: Southwestern Association of Parasitologists [**\$250**]

UNIVERSITY OF NORTH DAKOTA (grants awarded to me as student)

- 6 *Research Development and Compliance Travel Grant*. (2011) University of North Dakota: Research Development and Compliance Division of Research [**\$250**]
- 5 *Joe K. Neel Research Grant*. (2009) University of North Dakota: Department of Biology: Academic Programs and Student Awards Committee [**\$4,000**]
- 4 *North Dakota View Grant*. (2009) NDView: University of North Dakota: Department of Geography [**\$500**]
- 3 *Stella H. Fritzell Memorial Scholarship in Field Biology*. (2008–2009) University of North Dakota Department of Biology [**\$1,500**]
- 2 *Academic Programs and Student Awards Committee Research Grant*. (2008–2010) University of North Dakota: Biology Department [**\$200**]

- 1 *Advanced Undergraduate Research Award*. (2007) National Science Foundation: Experimental Program to Stimulate Competitive Research [\$6,400]

PUBLICATIONS

PEER-REVIEWED PUBLICATIONS

- 25 Koch, RW, SR Goepfner, **KD Gustafson**, and MG Bolek (2022) *Seasonal occurrence of *Neoechinorhynchus emydis* (Phylum: Acanthocephala) in the freshwater snail, *Planorbella* cf. *P. trivolvis*, from Oklahoma*. The Journal of Parasitology 108(5): 423–434.
- 24 Buchalski, MR, BN Sacks, KD Ahrens, **KD Gustafson**, JL Rudd, HB Ernest, and JA Dellinger (2022) *Development of a 95 SNP panel to individually genotype mountain lions (*Puma concolor*) for microfluidic and other genotyping platforms*. Conservation Genetics Resources 14:147–150
- 23 **Gustafson, KD**, RB Gagne, MR Buchalski, TW Vickers, SPD Riley, JA Sikich, JL Rudd, JA Dellinger, MEF LaCava, and HB Ernest (2022) *Multi-population puma connectivity could restore genomic diversity to at-risk coastal populations in California*. Evolutionary Applications 15(2): 286–299
- 22 LaCava, ME, RB Gagne, **KD Gustafson**, S Oyler-McCance, KL Monteith, H Sawyer, MJ Kauffman, DJ Thiele, and HB Ernest (2021) *Functional connectivity in a continuously distributed, migratory species as revealed by landscape genomics*. Ecography 44:987–999
- 21 Dellinger, JA, **KD Gustafson**, DJ Gammons, HB Ernest, and SG Torres (2020) *Minimum habitat thresholds required for conserving mountain lion genetic diversity*. Ecology and Evolution 10:10687–10696
- 20 Godwin, BL, MEF LaCava, B Mendelsohn, RB Gagne, **KG Gustafson**, SML Stowell, A Engilis, LA Tell, and HB Ernest (2020) *Novel hybrid finds a peri-urban niche: Allen's Hummingbirds in southern California*. Conservation Genetics 21:989–998
- 19 LaCava, MEF, RB Gagne, SML Stowell, **KD Gustafson**, CA Buerkle, L Knox, and HB Ernest (2020) *Pronghorn population genomics show connectivity in the core of their range*. Journal of Mammalogy 101:1061–1071
- 18 **Gustafson, KD**, BL Bly, and RA Newman (2020) *Color and pigment polymorphisms of northern leopard frogs on a prairie landscape*. Herpetological Conservation and Biology 14:223–234
- 17 Vazquez AA, **KD Gustafson**, B Harmeling, and HB Ernest (2019) *Genetic diversity of Yellow-billed Magpies before and after a West Nile Virus epidemic*. Journal of Wildlife Diseases 55:316–324
- 16 **Gustafson, KD**, RB Gagne, TW Vickers, SPD Riley, CC Wilmers, VC Bleich, BM Pierce, M Kenyon, TL Drazenovich, JA Sikich, WM Boyce, and HB Ernest (2019) *Genetic source–sink dynamics among naturally structured and anthropogenically fragmented puma populations*. Conservation Genetics 20:215–227.
- 15 Gagne, RB, MT Tinker, **KD Gustafson**, K Ralls, S Larson, LM Tarjan, MA Miller, and HB Ernest (2018) *Measures of effective population size in sea otters reveal special considerations for wide-ranging species*. Evolutionary Applications 11:1779–1790
- 14 **Gustafson, KD**, RA Newman, T Rhen, and VV Tkach (2018) *Spatial and genetic structure of directly-transmitted parasites reflects the distribution of their specific amphibian hosts*. Population Ecology 60:261–273.

- 13 Love Stowell, SM, EG Bentley, RB Gagne, **KD Gustafson**, L Rutledge, and HB Ernest (2018) *Optimal DNA extractions from blood on preservation paper limits conservation genomic but not conservation genetic applications*. Journal for Nature Conservation 46:89–96
- 12 **Gustafson, KD**, MG Hawkins, TL Drazenovich, R Church, SA Brown, and HB Ernest (2017) *Founder events, isolation, and inbreeding: Intercontinental genetic structure of the domestic ferret*. Evolutionary Applications 11:eva.12565
- 11 **Gustafson, KD**, TW Vickers, WM Boyce, and HB Ernest (2017) *A single migrant enhances the genetic diversity of an inbred puma population*. Royal Society Open Science. 4:170115
- 10 **Gustafson, KD** and RA Newman (2016) *Multiscale occupancy patterns of anurans in prairie wetlands*. Herpetologica 72:293–302
- 9 **Gustafson, KD**, JB Belden, and MG Bolek (2016) *Atrazine reduces the transmission of an amphibian trematode by altering snail and ostracod host–parasite interactions*. Parasitology Research 115:1583–1594.
- 8 **Gustafson, KD**, and MG Bolek (2016) *Effects of trematode parasitism on the shell morphology of snails from flow and nonflow environments*. Journal of Morphology 277:316–325
- 7 Bolek, MG, HS Stigge, and **KD Gustafson** (2016) *The iron wheel of parasite life cycles: Then and now!* Chapter 9:131–147 in A Century of Parasitology, (J Janovy, Jr. and GW Esch, eds.). Wiley Press.
- 6 Beaty, LE, JD Wormington, BJ Kensinger, KN Bayley, SR Goeppner, **KD Gustafson**, and B Luttbeg (2016) *Shaped by the past, acting in the present: Transgenerational plasticity of anti-predatory traits*. Oikos. 125:1570–1576.
- 5 **Gustafson, KD**, JB Belden, and MG Bolek (2015) *The effects of the herbicide atrazine on freshwater snails*. Ecotoxicology. 24:1183–1197.
- 4 **Gustafson, KD**, and MG Bolek (2015) *Tradeoff between establishing an infection and killing the host: Response of snails (*Physa acuta*) to a gradient of trematode (*Halipegus eccentricus*) exposures*. The Journal of Parasitology. 101:104–107.
- 3 **Gustafson, KD**, RA Newman, EE Pulis, and KC Cabarle (2015) *A skeletochronological assessment of age–parasitism relationships in Wood Frogs (*Lithobates sylvaticus*)*. The Journal of Herpetology. 49:122–130
- 2 **Gustafson, KD**, BJ Kensinger, MG Bolek, and B Luttbeg (2014) *Distinct snail (*Physa*) morphotypes from different habitats converge in shell shape and size under common garden conditions*. Evolutionary Ecology Research. 16:77–89.
- 1 **Gustafson, KD**, RA Newman, and VV Tkach (2013) *Effects of host species and life stage on the helminth communities of sympatric northern leopard frogs (*Lithobates pipiens*) and wood frogs (*Lithobates sylvaticus*) in the Shyenne National Grasslands, North Dakota*. The Journal of Parasitology. 99:587–594.

NON-PEER REVIEWED PUBLICATIONS

- 15 **Gustafson, KD**, J Schroeder, C Thigpen, T Klotz, and T Risch (2022) *American red wolf (*Canis rufus*) collections housed within the Arkansas State University Arkansas Center for Biodiversity Collections*. Annual report to the United States Fish and Wildlife Service
- 14 Ernest, HB, B Hoar, **KD Gustafson** (2022) *Population genetics study of California’s black bears*. Final report to California Department of Fish and Wildlife.

- 13 **Gustafson, KD**, T Klotz, T Risch (2021) *American red wolf (*Canis rufus*) collections housed within the Arkansas State University Arkansas Center for Biodiversity Collections*. Annual report to the United States Fish and Wildlife Service
- 12 **Gustafson, KD**, L Johnson, and HB Ernest (2021) *Population genetics and molecular mark-recapture of California's Black Bears*. Technical annual report submitted to California Department of Fish and Wildlife, Wildlife Branch–Game Management.
- 11 **Gustafson, KD**, L Johnson, and HB Ernest (2020) *Population genetics and molecular mark-recapture of California's Black Bears*. Technical annual report submitted to California Department of Fish and Wildlife, Wildlife Branch–Game Management.
- 10 **Gustafson, KD**, HB Ernest, and AA Gustafson (2019) *Population genetics and molecular mark-recapture of California's Black Bears*. Technical annual report submitted to California Department of Fish and Wildlife, Wildlife Branch–Game Management.
- 9 **Gustafson, KD**, HB Ernest, and AA Vazquez (2018) *Population genetics and molecular mark-recapture of California's Black Bears*. Technical annual report submitted to California Department of Fish and Wildlife, Wildlife Branch–Game Management.
- 8 **Gustafson, KD**, HB Ernest, and AA Vazquez (2017) *Population genetics and molecular mark-recapture of California's Black Bears*. Technical annual report submitted to California Department of Fish and Wildlife, Wildlife Branch–Game Management.
- 7 Vickers, TW, K Zeller, HB Ernest, **KD Gustafson**, and WM Boyce (2017) *Mountain lion (*Puma concolor*) connectivity in the north San Diego County multi-species conservation plan area*. A joint technical report submitted to San Diego County Association of Governments and California Department of Fish and Wildlife, Wildlife Investigations Unit.
- 6 Ernest, HB and **KD Gustafson** (2016) *Population genetics of California mountain lions*. Technical report Task3 submitted to California Department of Fish and Wildlife, Wildlife Investigations Unit.
- 5 **Gustafson, KD** and HB Ernest (2016) *Population genetics of California Mountain Lions*. Technical report Task2b submitted to California Department of Fish and Wildlife, Wildlife Investigations Unit.
- 4 Ernest, HB and **KD Gustafson** (2016) *Population genetics of California Mountain Lions*. Technical report Task2a submitted to California Department of Fish and Wildlife, Wildlife Investigations Unit.
- 3 **Gustafson, KD**, and RA Newman (2012) *Amphibian population trends on the Shiyenne National Grasslands*. Final Report submitted to USDA Forest Service, Dakota Prairie National Grasslands.
- 2 **Gustafson, KD**, and RA Newman (2011) *Amphibian population trends on the Shiyenne National Grasslands*. Technical Report submitted to USDA Forest Service, Dakota Prairie National Grasslands.
- 1 **Gustafson, KD**, and RA Newman (2010) *Amphibian population trends on the Shiyenne National Grasslands*. Interim Report submitted to USDA Forest Service, Dakota Prairie National Grasslands.

PRESENTATIONS

ORAL PRESENTATIONS (*undergraduate mentee; †graduate student mentee)

- 40 Bean*, L, Z Campbell†, and **KD Gustafson** (2022, October 15) *Canis latrans and Canis rufus: Comparative skull morphometric imaging*. 2022 ABI Summer Internship Research Symposium. Arkansas State University, Jonesboro, AR, USA
- 39 **[INVITED TALK] Gustafson, KD** (2022, October 5) *Statewide population genetics of pumas in California*. Statewide Mountain Lion Conservation and Research Meeting. University of California, Davis, CA, USA
- 38 Ho*, L. B Brown*, and **KD Gustafson** (2022, April 15) *Tapeworms and nematodes of eastern wild turkeys (Meleagris gallopavo) in eastern Missouri*. Report to: Missouri Department of Conservation. Remote attendance
- 37 **Gustafson, KD** (2022, March 3) *Urbanization and the conservation genetics of pumas in California*. The Wildlife Society: 7th annual meeting of the Arkansas Chapter. DeGray Lake Resort State Park, Bismarck, AR, USA
- 36 Fiedor†, TM, and **KD Gustafson** (2022, March 3) *Aquatic snails and their trematode parasites in the Crowley's Ridge ecoregion*. The Wildlife Society: 7th annual meeting of the Arkansas Chapter. DeGray Lake Resort State Park, Bismarck, AR, USA
- 35 Ho*, L. B Brown*, and **KD Gustafson** (2022, March 3) *Tapeworms and nematodes of eastern wild turkeys (Meleagris gallopavo) in eastern Missouri*. The Wildlife Society: 7th annual meeting of the Arkansas Chapter. DeGray Lake Resort State Park, Bismarck, AR, USA
- 34 Campbell†, Z, and **KD Gustafson** (2022, March 3) *Remnants of the American red wolf: a spatial and genomic analysis of the Arkansas coyote population*. The Wildlife Society: 7th annual meeting of the Arkansas Chapter. DeGray Lake Resort State Park, Bismarck, AR, USA
- 33 Ho*, L, **KD Gustafson**, and T McKay. (Sept. 27, 2021) *Survey of the Chagas Disease vector, Triatoma sanguisuga, in Northeast Arkansas*. Arkansas Biosciences Institute Summer Internship Conference. Jonesboro, AR, USA
- 32 Bolek, MB, R Koch, RP Shannon, A Bryant, **KD Gustafson**, H Stigge, and C Anaya. (July 30, 2021) *Biodiversity of parasites in freshwater snails: How common are non-trematode parasites in freshwater snails?* The 72nd Annual Midwestern Conference of Parasitologists. De Pere, WI, USA.
- 31 LaCava, MEF, RB Gagne, SM Love Stowell, **KD Gustafson**, CA Buerkle, L Knox, and HB Ernest. (February 14, 2020) *Pronghorn population genomics show connectivity at the core of their range*. University of Wyoming Program in Ecology Student Symposium. Laramie, WY, USA.
- 30 **Gustafson, KD**, RA Gagne, J Dellinger, and HB Ernest. (August 24, 2019) *Statewide population genomics of California's pumas*. National Science Foundation FELIDAE conference. Snowy Mountain Ranch YMCA of the Rockies, Colorado, USA
- 29 **Gustafson, KD**, TW Vickers, WM Boyce, and HB Ernest. (June 6, 2017) *A single migrant enhances the genetic diversity of an inbred puma population*. The Wildlife Society: International Urban Wildlife Conference. San Diego, California, USA
- 28 **Gustafson, KD**, WM Boyce, TW Vickers, BM Pierce, VC Bleich, M Kenyon, SPD Riley, CC Wilmers, T Drazenovich, RB Gagne, and HB Ernest. (May 17, 2017) *Statewide genetic analyses identify mountain lion populations and barriers to gene flow in California and Nevada*. Western Association of Fish and Wildlife Agencies: Mountain Lion Workshop. Estes Park, Colorado, USA
- 27 Vickers, TW, K Zeller, T Smith, B Cohen, HB Ernest, **KD Gustafson**, P Huber, D Geremenga, V McFall, N Quinn, L Cullens, J Sanchez, and WM Boyce. (May 17, 2017)

- Conserving mountain lions in southern California: Addressing fragmentation, conflict, and excess human-related morality in comprehensive and collaborative ways.* Western Association of Fish and Wildlife Agencies: Mountain Lion Workshop. Estes Park, Colorado, USA
- 26 **Gustafson, KD** and MG Bolek. (June 25, 2015) *Remodeling a stolen home: Effects of trematode parasitism on the functional shell morphology of snail shells in flow and nonflow environments.* American Society of Parasitologists. Omaha, Nebraska, USA
- 25 **Gustafson, KD**, JB Belden, and MG Bolek. (May 23, 2015) *The effects of the herbicide atrazine on freshwater snails.* Ozark Prairie – Society for Environmental Toxicology and Chemistry. Monsanto, St. Louis, Missouri, USA
- 24 **Gustafson, KD** and MG Bolek. (April 17, 2015) *Effects of trematode parasitism on the functional shell morphology of snail shells in flow and nonflow environments.* Southwestern Association of Parasitologists. The University of Oklahoma Biological Station, Lake Texoma, Oklahoma, USA
- 23 **Gustafson, KD**, JB Belden, and MG Bolek. (November 10, 2014) *The herbicide atrazine adversely affects trematode transmission through impacts on intermediate hosts.* Society for Environmental Toxicology and Chemistry. Vancouver, BC, Canada
- 22 **Gustafson, KD**, BJ Kensinger, B Luttbeg, and MG Bolek. (July 25, 2014) *Is your snail host who you think it is? Environmental effects on snail shell shape and implications for intermediate host identification.* American Society of Parasitologists. New Orleans, LA, USA
- 21 **Gustafson, KD**, JB Belden, and MG Bolek. (July 24, 2014) *Who gets sicker the hosts or the parasite? The herbicide atrazine affects trematode development and transmission through impacts on intermediate hosts.* American Society of Parasitologists. New Orleans, LA.
- 20 Bolek, MG, HA Stigge, and **KD Gustafson.** (July 24, 2014) *The iron wheel of parasite life cycles: Then and now!* American Society of Parasitologists. New Orleans, LA, USA
- 19 **Gustafson, KD**, JB Belden, and MG Bolek. (May 20, 2014) *Who gets sicker the hosts or the parasite? The herbicide atrazine adversely affects parasite (Trematode) development and transmission through impacts on intermediate hosts.* Ozark-Prairie Society of Environmental Toxicology and Chemistry. SynTech Research, Stilwell, Kansas, USA
- 18 **Gustafson, KD**, JB Belden, and MG Bolek. (April 19, 2014) *Who is sicker the host or the parasite? The herbicide atrazine adversely affects aquatic parasite (Trematode) transmission.* Southwestern Association of Naturalists. Oklahoma State University, Stillwater, Oklahoma, USA
- 17 **Gustafson, KD**, BJ Kensinger, B Luttbeg, and MG Bolek. (April 19, 2014) *Distinct snail (Physa) phenotypes converge in shell shape and size under common garden conditions.* Southwestern Association of Naturalists. Oklahoma State University, Stillwater, Oklahoma, USA
- 16 **Gustafson, KD**, JB Belden, and MG Bolek. (April 11, 2014) *Who is sicker the host or the parasite? The herbicide atrazine adversely affects aquatic parasite (Trematode) transmission.* Southwestern Association of Parasitologists. The University of Oklahoma Biological Station, Lake Texoma, Oklahoma, USA
- 15 **Gustafson, KD**, BJ Kensinger, B Luttbeg, and MG Bolek. (April 11, 2014) *Is your snail host who you think it is? Environmental effects on snail shell shape and implications for intermediate host identification.* Southwestern Association of Parasitologists. The University of Oklahoma Biological Station, Lake Texoma, Oklahoma, USA

- 14 **Gustafson, KD**, JB Belden, and MG Bolek. (September 6, 2013) *Do pesticides influence trematode transmission through impacts on snail hosts?* Rocky Mountain Conference of Parasitologists. Cedar Point Biological Station, NE, USA
 - 13 **Gustafson, KD**, JB Belden, and MG Bolek. (June 7, 2013) *Do pesticides influence trematode transmission through impacts on snail hosts?* Annual Midwestern Conference of Parasitologists. Purdue University, West Lafayette, Indiana, USA
 - 12 **Gustafson, KD**, JB Belden, and MG Bolek. (April 19, 2013) *Do pesticides influence trematode transmission through impacts on snail hosts?* Southwestern Association of Parasitologists. The University of Oklahoma Biological Station, Lake Texoma, Oklahoma, USA
 - 11 **Gustafson, KD** (January 28, 2013) *The Spatial Ecology of Amphibian Parasites in the Sheyenne National Grasslands, ND*. OSU Department of Zoology Lunchtime Seminar. Stillwater, OK, USA
 - 10 **Gustafson, KD**, RA Newman, and T.E. Rhen. (September 7, 2012) *Population genetic structure of amphibian lung nematodes (Rhabdias spp.) in the Sheyenne National Grasslands, ND*. Rocky Mountain Conference for Parasitologists, Cedar Point Biological Field Station, NE, USA
 - 9 **Gustafson, KD**, RA Newman, and VV Tkach. (September 7, 2012) *Landscape Ecology of Amphibians and their Parasites in the Sheyenne National Grasslands*. Rocky Mountain Conference for Parasitologists, Cedar Point Biological Field Station, NE, USA
 - 8 **Gustafson, KD**, RA Newman, and VV Tkach. (July 13, 2012) *Landscape Ecology of Amphibians Helminths in the Sheyenne National Grasslands, ND*. American Society of Parasitologists. Richmond, VA, USA
 - 7 **Gustafson, KD**, and RA Newman. (September 23, 2011) *Population genetics of leopard frog lung nematodes, Rhabdias ranae, in the Sheyenne National Grasslands*. Biochemistry and Molecular Biology Graduate Student Association Research Symposium. Stillwater, OK, USA
 - 6 **Gustafson, KD** (April 21, 2011) *Landscape Ecology of Amphibians and their Parasites in the Sheyenne National Grasslands*. Thesis Defense. Grand Forks, ND, USA
 - 5 **Gustafson, KD** (April 15, 2011) *The Spatial Ecology of Amphibians and their Parasites in the Sheyenne National Grasslands, ND*. Northern Plains Biological Symposium. Grand Forks, ND, USA
 - 4 **Gustafson, KD** (March 9, 2011) *The Spatial Ecology of Amphibians and their Parasites in the Sheyenne National Grasslands, ND*. The Graduate School Scholarly Forum. Grand Forks, ND, USA
 - 3 **Gustafson, KD**, and RA Newman. (February 11, 2011) *The Spatial Distribution of Amphibians in the Sheyenne National Grasslands, ND*. The Wildlife Society: North Dakota Chapter. Mandan, ND, USA
 - 2 **Gustafson, KD** (March 5, 2010) *The Spatial Ecology of Amphibians and their Parasites in the Sheyenne National Grasslands, ND*. Thesis Proposal. Grand Forks, ND, USA
 - 1 **Gustafson, KD** (November 3, 2009) *Spatial Distribution of Amphibians and their Parasites in the Sheyenne National Grasslands*. ND GIS Users' Conference. Grand Forks, ND, USA
- POSTER PRESENTATIONS (*undergraduate mentee; †graduate student mentee)**
- 16 Byrd*, M, and **KD Gustafson** (2022, August 12) *Digitally converting written collection data using Excel*. SUPERB Scholarship Program 2022 Summer Institute. Pickwick Landing State Park, Counce, TN, USA.
 - 15 Dawson*, A, Z Campbell†, and **KD Gustafson** (2022, August 12) *Hair casting and identification of Arkansas mammals*. SUPERB Scholarship Program 2022 Summer Institute. Pickwick Landing State Park, Counce, TN, USA.

- 14 Parette*, A, Z Campbell†, and **KD Gustafson** (2022, August 12) *Techniques needed to extract and measure DNA from coyote skulls in the A-State museum*. SUPERB Scholarship Program 2022 Summer Institute. Pickwick Landing State Park, Counce, TN, USA.
- 13 Bollinger*, MR, TM Fiedor†, and **KD Gustafson** (2022, August 12) *Pfiefferinella ellipsooides and other coccidia infections in snails throughout the Ozarks of Arkansas*. SUPERB Scholarship Program 2022 Summer Institute. Pickwick Landing State Park, Counce, TN, USA.
- 12 Priester*, C, L Gilbert–Saunders, and **KD Gustafson**. May 14, 2019. Using aquatic snails to measure heavy metals and assess wetland remediation success. Ozark–Prairie Society for Environmental Toxicology and Chemistry. Bayer Crop Science Campus, St. Louis, Missouri.
- 11 Priester*, C, L Gilbert–Saunders, and **KD Gustafson**. April 17, 2019. Using aquatic snails to measure heavy metals and assess wetland remediation success. MSSU Student Research Symposium. Missouri Southern State University, Joplin, Missouri.
- 10 **Gustafson, KD**, L. Ball*, and MG Bolek. July 14, 2016. Natural and experimental infections of *Daubaylia* sp. in *Helisoma trivolvis* and other freshwater snails. American Society of Parasitologists. Edmonton, Alberta, Canada.
- 9 Koch, RW, RP Shannon, **KD Gustafson**, and MG Bolek. July 14, 2016. Using morphological and molecular data to identify a *Neoechinorhynchus* sp. (Phylum: Acanthocephala) infecting a new snail host (*Helisoma trivolvis*). American Society of Parasitologists. Edmonton, Alberta, Canada.
- 8 Ball*, LT, **KD Gustafson**, and MG Bolek. December 4, 2015. Interactions of parasitic nematodes, parasitic trematodes, and commensal oligochaetes in the freshwater snail *Helisoma trivolvis*. Karen L. Smith Undergraduate Research Symposium. Oklahoma State University, Stillwater, OK.
- 7 **Gustafson, KD**, JB Belden, and MG Bolek. May 21, 2013. Does atrazine influence trematode transmission through impacts on snail hosts? Ozark-Prairie Chapter of the Society for Environmental Toxicology and Chemistry. ABC Laboratories, Inc., Columbia, MO.
- 6 **Gustafson, KD**. Parasitic Worms Infecting Two Amphibian Species in the Sheyenne National Grasslands, ND. Northern Plains Biological Symposium. Grand Forks, ND. April 15, 2011
- 5 **Gustafson, KD**. Parasitic Worms Infecting Two Amphibian Species in the Sheyenne National Grasslands, ND. The Wildlife Society Meeting: North Dakota Chapter. Mandan, ND. February 11, 2011
- 4 **Gustafson, KD**, and RA Newman. Validation and Applications of a Method for Age Determination in Amphibians. McNair Scholarly Forum. Grand Forks, ND, April 28, 2009
- 3 **Gustafson, KD**, and RA Newman. Validation and Applications of a Method for Age Determination in Amphibians. Northern Plains Biological Symposium. Grand Forks, ND. April 16–17, 2009
- 2 **Gustafson, KD**, and RA Newman. Validation and Applications of a Method for Age Determination in Amphibians. Graduate School Scholarly Forum. Grand Forks, ND, March 12, 2009
- 1 Newman, RA and **KD Gustafson**. Population Biology of the Wood Frog (*Rana sylvatica*) in Denali National Park. ND-SD EPSCoR Biennial Joint Conference. Fargo, ND. September 7, 2007

GRADUATE STUDENT MENTORING

ARKANSAS STATE UNIVERSITY — MAIN GRADUATE ADVISOR

- 4 **Maria R Bollinger** (MSc Biology; 2023–Present): Project being developed
- 3 **Samuel N Messinides** (PhD Molecular Biosciences; 2023–Present): Project being developed
- 2 **Taylor M Fiedor** (MSc Biology; 2021–Present): *Environmental effects on biodiversity of parasitic trematodes and their freshwater snail hosts in the Ozarks*
- 1 **Zachary G Campbell** (PhD Environmental Sciences; 2021–Present): *Remnants of the American Red Wolf: A spatial and genomic analysis of the Arkansas coyote population*

ARKANSAS STATE UNIVERSITY — GRADUATE COMMITTEE MEMBER

- 7 **Alexander Worm** (PhD Environmental Sciences; 2022–Present): *Hybridization, speciation, and evolution of kingbirds in the genus Tyrannus*
- 6 **India Hughes** (MSc Biology; 2022–Present): *Genetic origins of introduced sugarcane throughout the continental United States*
- 5 **Jacob Miranda** (MSc Biology; 2022–Present): *Space use and diet composition of female cerulean warblers (*Setophaga cerulea*) in the Ozarks and Appalachians*
- 4 **Monica Reusche** (MSc Biology; 2021–Present): *Genetic structuring of the Ozark pocket gopher (*Geomys bursarius ozarkensis*) and co-evolution with its *Geomydoecus* ectoparasites*
- 3 **Hilary Canada** (MSc Biology; 2021–Present): *Population genomic assessment of the endangered Cumberland Darter (*Etheostoma susanae*)*
- 2 **Emily Donahue** (PhD Molecular Biosciences; 2021–Present): *Evaluating breeding ecology and agricultural toxin exposure and related sublethal effects in loggerhead shrikes*
- 1 **Benjamin Benton** (MSc Biology; 2021–Present):

UNDERGRADUATE STUDENT MENTORING

ARKANSAS STATE UNIVERSITY (as PI)

- 9 **Laura Bean** (2022 summer): 3D morphometric skull scanning
- 8 **Aiyana Dawson** (2021–Present): Mammal hair database
- 7 **Alexandra Parette** (2021–Present): Laboratory genetics, canid skulls
- 6 **Maria Bollinger** (2021–2023): Snail parasites, gopher parasites, curation
- 5 **Meghan Byrd** (2021–2022): Collections
- 4 **Joseph Schroeder** (2021–2022): Mammalogy TA, Collections, Curation
- 3 **Landen Ho** (2020–2022): Parasites of wild turkeys
- 2 **Benjamin Brown** (2020–2022): Parasites of wild turkeys
- 1 **Brianne Allen** (2020–2020)

MISSOURI SOUTHERN STATE UNIVERSITY (as PI)

- 6 **Kyle Keller** (2019–2020): Microscopy
- 5 **Lauren Kennedy** (2019): High school education of mitosis and meiosis
- 4 **Kelsey Martin** (2019–2020): Parasitology
- 3 **Taylor Powell** (2019–2019): Morphometrics
- 2 **Kelsea Tyson** (2019–2020): Laboratory genetics
- 1 **Cameron Priester** (2018–2019): Heavy metals in the shells of aquatic snails

OKLAHOMA STATE UNIVERSITY (as Graduate Student)

- 4 **Luke Ball** (2015): Internal symbionts of snails
- 3 **Wade Arthur** (2014): Snail and trematode populations

- 2 **Ryan Shannon** (2013): Atrazine toxicity to snails
 - 1 **Monica Jones** (2013): Trematode effects on snail hosts
- UNIVERSITY OF NORTH DAKOTA (as Graduate Student)**
- 1 **Michael Michelson** (2009–2010): Cestodes, Nematodes, Trematodes of amphibians

FELLOWSHIPS, HONORS, AWARDS

AS PROFESSOR

- 3 **KEY Award for New Faculty. (2021)** NIGHTSEA & Electron Microscopy Sciences Award [\$2,000]
- 2 **Writing Excellence Award. (2020)** Missouri Southern State University: Writing Program Committee: For BIOL 305 Genetics: “*Empowering Students to Think and Write Like Biologists: A Multiweek, Inquiry-Based, Fruit Fly Writing Project*” [\$250]
- 1 **Ashton Cuckler New Investigator Award. (2018)** American Society of Parasitologists: Cancun, Mexico: June 2018 [\$2,500]

OKLAHOMA STATE UNIVERSITY (honors awarded to me as student)

- 10 **Outstanding Graduate Student Award (2016)** Oklahoma State University: Department of Integrative Biology [\$800]
- 9 **Ford Foundation Dissertation Fellowship (2014–2015)** National Academy of Sciences [\$21,000]
- 8 **Sponsorship for *Introduction to Teaching & Learning at the College Level* (2014)** Oklahoma State University: Graduate College
- 7 **American Society of Parasitologists Best Student Platform Presentation. (2014)** American Society of Parasitologists National Conference [\$250]
- 6 **Best Student Platform Presentation (2014)** Ozark-Prairie Society of Environmental Toxicology and Chemistry Regional Conference [\$400]
- 5 **David A. Becker Memorial Award for the Best Student Podium presentation (2014)** Southwestern Association of Parasitologists Regional Conference [\$100]
- 4 **Ford Foundation Predoctoral Fellowship: Alternate Status, Honorable Mention (2013)** National Academy of Sciences
- 3 **David A. Becker Memorial Award for the Best Student Podium presentation (2013)** Southwestern Association of Parasitologists Regional Conference [\$100]
- 2 **Seven Stars Scholarship (2012)** American Indian College Fund [\$1,000]
- 1 **College of Arts & Sciences Dissertation Fellowship (2011–2014)** Oklahoma State University: College of Arts & Sciences [\$15,000]

UNIVERSITY OF NORTH DAKOTA (honors awarded to me as student)

- 6 **Outstanding Graduate Student Award (2011)** University of North Dakota: Department of Biology [\$500]
- 5 **Ronald E. McNair Post-Baccalaureate Achievement Program Fellowship (2008–2009)** United States Department of Education: University of North Dakota: TRIO [\$7,500]
- 4 **Pheasants Forever Scholarship (2008)** Pheasants Forever: Red River Valley Chapter [\$200]

- 3 **The Wildlife Society's Undergraduate Student Scholarship (2008)** The Wildlife Society: North Dakota Chapter [\$250]
- 2 **University of North Dakota Incoming Freshman Scholarship (2004)** University of North Dakota [\$150]
- 1 **Comanche Nation Scholarship (2004–2015)** Comanche Nation: Office of Higher Education

SERVICE

UNIVERSITY COMMITTEES

- **Ad hoc Search Committee for Cell Biologist (Member)**
- **Ad hoc Native American Land Acknowledgment Committee (Member)**
- **Website Committee (Chair)** to enhance the Department of Biology's website, highlight faculty accomplishments, ensure lab group websites are advertised, and manage traffic for social media. Fall 2020–Current
- **Vehicle-Use Committee (member)** to coordinate routine maintenance on fleet and train personnel on vehicles. Fall 2020–Current
- **Research Curriculum Ad-Hoc Committee** to develop a comprehensive research curriculum that allows students to gain knowledge and experience with research at various levels of study. Fall 2019–Spring 2020
- **Faculty Handbook Ad-Hoc Committee** to determine appropriate departmental scholarly activities with regards to the 2019-20 Faculty Handbook. Fall 2019–Current
- **Judge** at MSSU Research Symposium (4/17/2019)

OTHER UNIVERSITY SERVICE

- **Create@State interview** with Johnathan Reaves about research at A-State (8/6/2020)
- **MSSU Newsmaker interview** with Judie Stiles about research at MSSU (12/4/2019)
- **Undergraduate Student Advisor** for 10 students: Fall 2019
- **Learning Outcomes 4 Assessment Committee** to assess our teaching ability of laboratory and field skills in the Biology and Environmental Health Department. Fall 2018–Current
- **BIOL 499 Independent Research in Biology** mentor for Cameron Priester; 3-credits
- **Judge** at MSSU Research Symposium (4/17/2019)
- **Poster judge:** Karen L. Smith Undergraduate Research Symposium: Oklahoma State University: 2014
- **Logo Design:** Northern Plains Biological Symposium: 2009
- **President** of The Wildlife Society Student Chapter: University of North Dakota: 2008
- **Racquetball Tournament Fundraiser:** The Wildlife Society Student Chapter: Grand Forks, ND: 2008

PROFESSIONAL SERVICE

- **NSF Review Panelist** 2023 – 1 grant review
- **NSF Review Panelist** 2022 – 17 grant reviews
- **Lectureship Committee:** American Society of Parasitologists: 2020–current
- **Nominating and Tellers Committee:** American Society of Parasitologists: 2018–2020
- **Student Awards Committee member:** American Society of Parasitologists: 2017–2020

SOCIETAL MEMBERSHIPS (current)

- American Society of Parasitologists (member)
- Society for the Study of Amphibian and Reptiles (member)
- American Malacological Society (member)
- The Wildlife Society (Associate Wildlife Biologist)
- Southwestern Association of Parasitologists (member)

PEER REVIEW

Journal followed by number of reviews in parentheses

American Malacological Bulletin (1); BCM Zoology (1); Biological Conservation (1); BioInvasions Records (1); Canadian Journal of Zoology (2); Current Zoology (2); Diversity (3); Ecosphere (1); Ecotoxicology (3); Environmental Science and Pollution Research (2); Environmental Science & Technology (1); Freshwater Biology (1); Frontiers in Ecology and Evolution (1); Global Health Research and Policy (2); Herpetological Journal (2); Herpetological Monographs (1); Hydrobiologia (2); IBIS (1); Infectious Diseases of Poverty (2); International Journal of Parasitology (1); Journal of Mammalogy (1); Journal of Natural History (1); Journal of Parasitology (4); Journal of Wildlife Management (1); Mammal Review (1); Molecular Ecology (1); NATURE Communications (1); NATURE Ecology and Evolution (1); Parasitology (1); Proceedings to the Royal Society B (1); Science of the Total Environment (1); Wetlands (1)

COMMUNITY SERVICE

- Think Outside! Nature Day: Introduced elementary students to local amphibians and reptiles: Sangre Ridge Elementary School: May 2015.
- Comanche Nation College Summer Camp: Introduced Comanche Nation students to microscopy, invertebrates, and parasitology: Oklahoma State University: 2014.
- Fishin' and Froggin': Taught local elementary students to identify fishes and amphibians: Stillwater, OK: 2013.
- National Lab Day: Engaged local high school students in our parasitology laboratory: Oklahoma State University: 2012, 2013
- Oklahoma WONDERtorium: Introduced local K–12 students and families to Oklahoma reptiles and amphibians: Stillwater, OK: 2011
- Kelly's Slough National Wildlife Refuge: Refurbished bird nest boxes with The Wildlife Society: Grand Forks, ND: Sept.–Nov., 2008

PUBLICITY

- Featured on Missouri Southern State University's **KGSC21 Newsmaker** program. (12/4/2019) <https://www.youtube.com/watch?v=z6ImEPK3Y6M>
- Featured in mini-series documentary: "Bonus Episode: The Connection Conflict" **California Mountain Lions** <https://youtu.be/D5ad84oqb4I>
- In the news: "MSSU student uses snails to study local mining areas" **KOAM News Now** <https://www.koamnewsnow.com/news/mssu-student-uses-snails-to-study-local-mining-areas/1070347553> (4/18/2019)

- In the news: “MSSU student studying snails for impact of mining cleanup efforts” **Joplin Globe** https://www.joplinglobe.com/news/local_news/mssu-student-studying-snails-for-impact-of-mining-cleanup-efforts/article_8dd64e75-71be-526d-8100-da204a24cd3d.html (4/4/2019)
- In the news: “Senior Cameron Priester receives prestigious research grant” **Missouri Southern State University MOSO MINUTE** <https://moso-minute.mssu.edu/index.php/2019/03/senior-cameron-priester-receives-prestigious-research-grant/> (3/26/2019)
- In the news: “Development is dividing California’s puma populations” **The Wildlife Society** <http://wildlife.org/development-is-dividing-californias-puma-populations/> (1/18/2019)
- Interview with **The Wildlife Society** for mountain lion population genetics (1/9/2019)
- In the news: “A Riverside County mountain lion sired 11 kittens, but that won’t fix weak gene pool” **Los Angeles Times** <https://www.latimes.com/local/california/la-me-puma-genetic-diversity-20170616-story.html> (6/16/2017)
- In the news: “Population Biology of the Wood Frog” **National Park Service** <https://www.nps.gov/articles/denali-wood-frog-population.htm> (2010)

PROFESSIONAL DEVELOPMENT

- **Introduction to Machine Learning for Ecologists in Python:** a 10-hour bioinformatics workshop hosted by WEST, Inc, Laramie, Wyoming: January 11–15, 2021
- **ConGen 2020:** a conservation genomics data analysis course and workshop held by Flathead Lake Biological Station, University of Montana, USA: September 7–18, 2020
- **Master Advisor Training Program:** Certificate of achievement through Missouri Southern State University: Fall 2019
- **Blackboard Green Certification:** Certification through Missouri Southern State University Department of Distance Learning: Spring 2019
- **Associate Wildlife Biologist:** Professional certification through *The Wildlife Society*: December 2018–2028
- **California Mountain Lion Science Working Group:** California Department of Fish and Wildlife: Wildlife Investigations Unit: October 11, 2017
- **Spatial Capture–Recapture Modeling Workshop:** University of Georgia: The Warnell Continuing Education Program; Instructors: Richard Chandler and Andrew Royle: July 12–15, 2016
- **Grant Writers’ Seminars and Workshops:** University of Wyoming: Office of Research and Economic Development: “Write Winning Grant Proposals”: June 1, 2016
- **Introduction to Teaching and Learning at the College Level:** Oklahoma State University: Institute for Teaching and Learning Excellence: A six-week non-credit course: Fall 2014

CONFERENCES ATTENDED

- Arkansas Karst and Bat Conservation Meeting: 2020
- National Science Foundation FELIDA conference: 2019, 2022
- American Society of Parasitologists: 2012, 2014, 2015, 2016, 2018
- The Wildlife Society: 2009, 2017, 2022
- Southwestern Association of Parasitologists: 2012, 2013, 2014, 2015
- Rocky Mountain Conference of Parasitologists: 2012, 2013, 2014

- National Academy of Sciences Ford Foundation: 2014
- Society for Environmental Toxicology and Chemistry: 2014
- Ozark-Prairie Society for Environmental Toxicology and Chemistry: 2014, 2015, 2019
- Annual Midwestern Conference of Parasitologists: 2013
- Southwestern Association of Naturalists: 2014
- Biology Graduate Student Association Research Symposium: 2011, 2012
- Dakota Amphibian Reptile Network: 2009, 2010
- North Dakota GIS Users' Conference: 2009
- McNair Scholarly Forum: 2009
- Northern Plains Biological Symposium: 2009
- ND-SD EPSCoR Conference: 2007